## **SUMMARY**

This Environmental Assessment (EA) was prepared by the Bureau of Land Management (BLM), in cooperation with the Montana Department of Environmental Quality (MDEQ) and the Montana Board of Oil and Gas Conservation (MBOGC), to provide a coordinated analysis of the Fidelity Exploration & Production Co. Tongue River - Coal Creek Project Plan of Development (POD).

Fidelity Exploration & Production Company (Fidelity) filed the Tongue River - Coal Creek Project Plan of Development and Applications for Permit to Drill (APD's) for 210 wells, received by the BLM on April 15, 2004. The project proposed by Fidelity includes the drilling, completing and producing of 132 wells on 27 locations of federal minerals, 16 wells on 4 locations of state minerals, and 62 wells on 13 locations of private minerals; and constructing and installing the associated infrastructure of access roads, flowlines, power lines, meter and pumping facilities, using existing infrastructure and reclaiming disturbed areas. In addition, Fidelity proposes to install this infrastructure to produce 4 previously drilled CBNG wells; 2 federal, 1 fee and 1 state. The Coal Creek POD has been approved by the Montana Board of Oil & Gas Conservation; however, drilling permits have not been approved pending completion of an environmental analysis. Fidelity proposes to begin these operations after receipt of necessary approvals, with completion of these operations in 2005. The proposed wells would be completed in the Carney, Monarch, and Dietz coal seams in the Tongue River Member of the Fort Union Formation. The production life of the Project wells is expected to be 10-15 years with final reclamation to be completed approximately two or three years following plugging of the wells and removal of production facilities.

The project area is located adjacent to production in the Badger Hills portion of the CX Field, primarily Sections 16, 19, 20, 21,22, 27, 28, 29, 30, 31, 32, 33 and 34, T. 9 S., R. 41 E., and Sections 23 and 24, T. 9 S., R. 40 E, in Big Horn County, southeastern Montana. BLM conducted field on-site inspections of the proposed well locations and associated infrastructure on May 6<sup>th</sup> and 7<sup>th</sup>, 2004. During the field visits to each of the proposed locations, all areas of proposed surface disturbance were inspected to ensure that potential impacts to natural resources would be minimized.

Issues of concern include impacts to wildlife, protection of cultural resources, effects on water quality and quantity, reclamation of disturbed areas, cumulative impacts (past, present and reasonably foreseeable actions) of CBNG exploration and development and related activities, and air quality. The proposed project is for drilling and production of CBNG; impacts from the preferred alternative would be relatively short-term. Effects may comprise: air quality that would include some particulate emissions due to construction and exhaust from drilling equipment and field compressors, surface and ground water potential impacts occurring from drawdown of coal bed aquifer and discharges from the private and federal wells, wildlife habitat fragmentation and human/wildlife interactions could occur in the area, and cultural resources may inadvertently be revealed.

The environmental analysis in this EA and other referenced environmental analyses, provides basis for the BLM and MBOGC decisions. The agencies must decide whether or not to approve the individual wells and associated infrastructure on or for the benefit of leases associated with the proposed project.

Various actions and management options were analyzed in three alternatives; the no action alternative (Alternative A), the no federal approval alternative (Alternative B), and approval of Fidelity's proposed action with additional mitigation (Alternative C). The agencies have identified Alternative C as the preferred alternative.

## **GLOSSARY**

**APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK (APD):** The Department of Interior permit application form needed to authorize oil and gas drilling activities on federal minerals.

**BENEFICIAL USES**: Beneficial uses of the Tongue River include agriculture, aquatic life, drinking water, and industrial and recreational uses.

**COAL BED NATURAL GAS (aka COAL BED METHANE):** A clean-burning natural gas found inside and around coal seams. The gas has an affinity to coal and is held in place by pressure from groundwater. Producing coal bed natural gas involves drilling into coal seams and reducing the hydrostatic pressure on the coal by producing the groundwater thus releasing the gas.

**CRITERIA POLLUTANTS**: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, fine particulate matter and sulfur dioxide.

**CUMULATIVE IMPACT:** The impact on the environment that results from the positive or negative impacts of an action when added to other past, present and reasonable foreseeable future actions, regardless of what agency or person performed such action(s).

**CONDITION OF APPROVAL (COA):** Requirements imposed on the applicant under which an Application for a Permit to Drill (APD) or Sundry Notice is approved.

**LEASE:** 1) An oil and gas lease is a contract that grants the lessee the rights to drill for and remove oil and gas deposits in the leased lands, subject to the terms and conditions incorporated in the lease. 2) The tract of land, on which a lease has been obtained, where producing wells and production equipment are located.

**MINERAL DRAINAGE:** An offsetting producing well that removes oil or gas from a federal or Indian lease.

**MITIGATION MEASURES:** Methods or procedures developed for the purpose of reducing or eliminating the impacts of an action. Mitigation may be built into the proposed project or required in an alternative as a condition of approval.

**PRIMARY STANDARDS**: NAAQS standards designed to protect human health, including "sensitive" populations, such as people with asthma and emphysema, children, and senior citizens. Primary standards are designed for the immediate protection of public health, with an adequate margin of safety, regardless of cost.

**PREVENTION OF SIGNIFICANT DETERIORATION (PSD) PROGRAM**: Incremental increases in the ambient concentration of criteria pollutants are regulated under the New Source Review - Prevention of Significant Deterioration (PSD) program. The program is designed to limit the incremental increase of specific air pollutants from major sources of air pollution above a legally defined baseline level, depending on the classification of a location. Incremental increases in PSD Class I areas are strictly limited, while increases allowed in Class II areas are less strict.

**PROPOSED ACTION:** An individual action or a combination of actions proposed on or to benefit federal leases.

**SECONDARY STANDARDS**: NAAQS standards designed to protect public welfare, including soils, water, crops, vegetation, buildings, property, animals, wildlife, weather, visibility and other economic, aesthetic, and ecological values, as well as personal comfort and well-being. Secondary standards were established to protect the public from known or anticipated effects of air pollution.

**SPLIT ESTATE:** Surface and minerals of a given area in different ownerships. Frequently, the surface is privately-owned while the minerals are federally-owned.

## ABBREVIATIONS/ACRONYMS

AO Authorized Officer

APD Application for Permit to Drill APE Area of Potential Effect

APLIC Avian Power Line Interaction Committee

ARM Administrative Rules of Montana

AUM Animal Unit Month BCF Billion Cubic Feet

BCPL Bitter Creek Pipelines, LLC
BGS Below Ground Surface
BLM Bureau of Land Management
BMP Best Management Practice
CBNG Coal Bed Natural Gas
COA Conditions of Approval
CWA Clean Water Act

DEM Digital Evaluation Model

DNRC Department of Natural Resources and Conservation

EA Environmental Assessment EC Electrical Conductivity

EPA Environmental Protection Agency

ESA Endangered Species Act

Fidelity Exploration and Production Company

FLPMA Federal Land Policy Management Act

FWS U.S. Fish and Wildlife Service

GPM gallons per minute

GWIC Groundwater Information Center KCLA Known Coal Leasing Area

MAAQS Montana Ambient Air Quality Standards

MAQP Montana Air Quality Permit MAOP Montana Air Quality Permit

MBMG Montana Bureau of Mines and Geology
MBOGC Montana Board of Oil and Gas Conservation

MCA Montana Codes Annotated

MDEQ Montana Department of Environmental Quality

MEPA Montana Environmental Policy Act

MLA Mineral Leasing Act

MPDES Montana Pollution Discharge Elimination System

MT FEIS Montana Statewide Final Environmental Impact Statement (2003)

NAAQS National Ambient Air Quality Standards NASIS National Soils Information System

NCT Northern Cheyenne Tribe

NHPA National Historic Preservation Office

NOI Notice of Intent

OZM Ozone Limiting Method POD Plan of Development PRG Powder River Gas

PSD Prevention of Significant Deterioration

BPIP Building Profile Input Program

R/W Right-of-way

RMP Resource Management Plan
SAR Sodium Adsorption Ratio
SHPO State Historic Preservation Office

SOB Statement of Basis SSS Special Status Species SWPPP Storm Water Pollution Prevention Plan

t/ac/yr tons per acre per year T/E Threatened/Endangered

TAC Technical Advisory Committee
USGS United States Geological Survey
VRM Visual Resource Management

WMPP Wildlife Monitoring and Protection Plan

WNV West Nile Virus WQA Water Quality Act

WY FEIS Wyoming Environmental Impact Statement (2003)

7Q10 The lowest flow expected to occur for seven consecutive days over any 10 year period